## REMARKS

Upon entry of this amendment, claims 15-17, 35, 38, and 49-98 are pending. Claims 15, 35, 49, 52, 54, 57, 59, 62, 64, 67, 69 and 72 have been amended. Support for the amendments to claims 15, 35, 49, 52, 54, 57, 59, 62, 64, 67, 69 and 72, and new claims 74-98 can be found in originally filed claims 1, 15-17, 35, and 38, and in the specification at, *e.g.*, page 10, lines 35-41; and page 13, line 25 to page 14, line 42. No new matter is added.

***Claim Rejections -- 35 U.S.C. § 103***

Claims 15-17, 35, 38 and 49-73 are rejected under 35 U.S.C. § 103(a) as being obvious over Chan *et al.*, Oncogene 1991, 6:1057-61 ("Chan", cited as "Chen" in the Office action), cited as reference C7 in the Information Disclosure Statement filed by Applicants on February 2, 2001, or Park *et al.*, Oncogene 1997, 14:553-42 ("Park"), cited as reference C12 in the Information Disclosure Statement filed by Applicants on February 2, 2001, in view of Harlow *et al.*, Antibodies, 1988 ("Harlow") or Morrison et al, Advances in Immunology 44, 1989 ("Morrison").

A. Chan/Harlow/Morrison

The Examiner states that Chan discloses a partial eek sequence that is identical to a region of SEQ ID NO: 5. (Office action mailed April 21, 2003, page 3). Specifically, the polypeptide sequence disclosed by Chan corresponds to amino acids 706-725 of SEQ ID NO: 5. (See, *e.g.*, Table 6A on pages 14-15). According to the Examiner, antibodies against the polypeptide disclosed in Chan are antibodies against the polypeptide of SEQ ID NO: 5. Applicants disagree.

Applicants have amended claims 15, 49, 54, 59, 64 and 69 herein to clarify the patentable distinctions between the instant invention and the above-cited references.

Specifically, the claims as amended herein, do not recite the *region* of SEQ ID NO: 5 taught by Chan. For example, claim 15 as amended reads, in part, "[a]n isolated antibody that immunospecifically-binds to a polypeptide comprising amino acids 1-705 of SEQ ID NO: 5," and newly added claim 74 recites, in part, "[a]n isolated antibody that immunospecifically-binds to the amino acid sequence of amino acids 726-992 of the amino acid sequence of SEQ ID NO: 5." Thus, the antibodies of the invention as claimed, would not bind the polypeptide disclosed by Chan. Harlow, relied on by the Examiner to teach uses for antibodies and monoclonal

antibodies, does not teach or suggest the amino acid sequence of SEQ ID NO: 5, much less the specific regions of amino acids 1-705 and 726-992 of SEQ ID NO: 5. Similarly, Morrison is relied on by the Examiner to teach humanized antibodies. However, like Harlow, Morrison does not cure the deficiencies of Chan, as Morrison does not teach or suggest the amino acid sequence of SEQ ID NO: 5, much less the specific regions of amino acids 1-705 and 726-992 of SEQ ID NO: 5.

A. Park/Harlow/Morrison

The Examiner also states that "the limitation of at least 96% identity fails to distinguish the instantly claimed antibodies over antibodies against the protein taught by Park et al. An antibody raised against a protein so similar in structure to SEQ ID NO: 5 would also bind specifically to the protein of SEQ ID NO: 5." (Office action, page 2). The instant specification as filed disclosed the murine eek polypeptide taught by Park at page 10, lines 32-35, and Table 6. The polypeptide disclosed by Park is provided as SEQ ID NO: 52 in the present application. Pending independent claims 15, 49, 54, 59, 64, and 69, and new independent claims 74, 79, 84, 89, and 94 have been amended to require that the claimed antibody "*does not immunospecifically bind to the polypeptide of SEQ ID NO: 52.*" Accordingly, Park does not teach the antibody as currently claimed.

In regard to new claim 94, which recites specific polypeptide regions of SEQ ID NO: 5, Applicants note that in none of these regions are there more than two amino acids that are identical between SEQ ID NO: 5 and SEQ ID NO: 52. (See, Table 6 on pages 13-14). It is recognized by one of ordinary skill in the art that a minimum of four to six amino acids are required to create an antigenic domain. Therefore, the isolated antibody that immunospecifically-binds to the polypeptides recited in claim 94 do not immunospecifically bind to the polypeptide disclosed by Park.

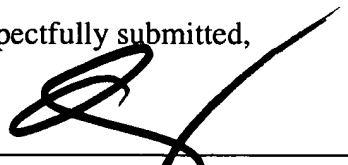
Harlow and Morrison add nothing to Park. Neither Harlow nor Morrison teach or suggest the amino acid sequence of SEQ ID NO: 5, much less the specific regions of amino acids 1-705 and 726-992 of SEQ ID NO: 5.

For the above-stated reasons, the pending claims are not obvious in view of Chen , Park, Harlow, and Morrison, and this rejection should be withdrawn.

## CONCLUSION

Based on the instant amendments and remarks, Applicants submit that this application is in condition for allowance and such action is respectfully requested. Should any questions or issues arise concerning the application, the Examiner is encouraged to contact Applicants' undersigned attorney at the telephone number indicated below.

Respectfully submitted,



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